Yunghsiang S. Han

Graduate Institute of Communication Engineering
National Taipei University
151. University Rd., Sanshia, Taipei County
Taiwan, R. O. C.
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Education

SYRACUSE UNIVERSITY — Syracuse, NY

- Ph.D. in Computer and Information Science (August 1993)
  - *Dissertation Topic: Efficient Soft-Decision Decoding Algorithms for Linear Block Codes Using Algorithm A*.*
  - **Winner of Syracuse University Doctoral Prize of the Year 1994.**

NATIONAL TSING HUA UNIVERSITY — Hsinchu, Taiwan, R. O. C.

- MS in Electrical Engineering (June 1986)
- BS in Electrical Engineering (June 1984)

Professional Experience

GRADUATE INSTITUTE OF COMMUNICATION ENGINEERING
NATIONAL TAIPEI UNIVERSITY — Taiwan, R. O. C.
August 2009 – present
Professor and Chairperson.

GRADUATE INSTITUTE OF COMMUNICATION ENGINEERING
NATIONAL TAIPEI UNIVERSITY — Taiwan, R. O. C.
August 2008 – July 2009
Professor.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
UNIVERSITY OF TEXAS AT AUSTIN — Austin TX , USA
August 2008 – June 2009
Visiting Scholar.

GRADUATE INSTITUTE OF COMMUNICATION ENGINEERING
NATIONAL TAIPEI UNIVERSITY — Taiwan, R. O. C.
August 2004 – July 2008
Professor and Chairperson.

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING
NATIONAL CHI NAN UNIVERSITY — Taiwan, R. O. C.
August 1998 – July 2004
Professor.

THE NEW YORK STATE CENTER FOR ADVANCED TECHNOLOGY IN COMPUTER APPLICATIONS AND SOFTWARE ENGINEERING (CASE)
THE CENTER FOR SYSTEMS ASSURANCE (CSA)
DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE
SYRACUSE UNIVERSITY — Syracuse NY, USA
September 2002 – January 2004

SUPRIA (Syracuse University Prototypical Research in Information Assurance)
Visiting Research Scholar.

Department of Electrical Engineering
University of Hawaii at Manoa — Honolulu HI , USA
June 2001 – October 2001
Visiting Scholar.

Department of Computer Science and Information Engineering
National Chi Nan University — Taiwan, R. O. C.
August 1998 – July 2001
The Head of Computer and Network Center.

Department of Computer Science and Information Engineering
National Chi Nan University — Taiwan, R. O. C.
August 1997 – July 1998
Associate Professor.

Department of Electronic Engineering
Hua Fan College of Humanities and Technology — Taiwan, R. O. C.
September 1994 – July 1996
The Head of Computer Center.

Department of Electronic Engineering
Hua Fan College of Humanities and Technology — Taiwan, R. O. C.
August 1993 – July 1997
Associate Professor.

Department of Computer and Information Science
Syracuse University — Syracuse, NY
August 1992 – August 1993
Graduate Research Associate.

Department of Computer and Information Science
Syracuse University — Syracuse, NY
August 1989 – July 1992
Graduate Teaching Assistant.

Professional Services

IEEE Taipei Section — Taiwan, R. O. C.
January 2007– December 2008
Chair of Educational Activities.

IEEE Information Theory Society Taipei Chapter — Taiwan, R. O. C.
August 2005– July 2007
Chapter Chair.

Journal of Internet Technology
2001-present
Editor.

International Journal of Ad Hoc and Ubiquitous Computing
2005-present
Editor.

International Journal of Distributed Sensor Networks
2010-present
Editor.

The First IEEE International Conference on Wireless and Mobile Computing, Networking and Communications — Montreal, Canada
2005
Technical Program Committee member.

The Second IEEE International Conference on Wireless and Mobile Computing, Networking and Communications — Montreal, Canada
2006
Technical Program Committee member.

The IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing — Taichung, Taiwan, R. O. C.
2006
Technical Program Committee member.

The IEEE International Workshop on Ad Hoc, Ubiquitous Computing — Taichung, Taiwan, R. O. C.
2006
Co-Chair.

International Conference on Algorithms, Systems, and Applications of Wireless Network — Xian, China
2006
Technical Program Committee member.

The IEEE Consumer Communications and Networking Conference 2007 (IEEE CCNC 2007): Wireless Networking Track — Las Vegas, USA
2007
Technical Program Committee member.

The 2007 IFIP International Conference on Embedded and Ubiquitous Computing — Taipei, Taiwan, R. O. C.
2007
Technical Program Committee member.

The Third IEEE International Conference on Wireless and Mobile Computing, Networking and Communications — New York City, USA
2007
Technical Program Committee member.

IEEE Global Telecommunications Conference (IEEE GLOBECOM 2007): Multimedia Communications Software and Services Symposium — Washington, D.C., USA
2007
Technical Program Committee member.

The First IEEE Conference on Wireless Rural and Emergency Communications (WRECOM 2007) — Rome, Italy
2007

Technical Program Committee member.

The IEEE Consumer Communications and Networking Conference 2008 (IEEE CCNC 2008): Network Access and Communications track — Las Vegas, USA
2008
Technical Program Committee member.

The 2008 IEEE International Conference on Communications (IEEE ICC 2008): Information and Network Security Symposium — Beijing, China
2008
Technical Program Committee member.

The IEEE Consumer Communications and Networking Conference 2009 (IEEE CCNC 2009): Wireless Networking for Consumer Electronics track — Las Vegas, USA
2009
Technical Program Committee member.

The 2009 IEEE International Conference on Communications (IEEE ICC 2009): Communication and Information Systems Security Symposium — Dresden, Germany
2009
Technical Program Committee member.

The IEEE Consumer Communications and Networking Conference 2010 (IEEE CCNC 2010): Smart Spaces and Personal Area Networks for CE track — Las Vegas, USA
2010
Technical Program Committee member.

The International Symposium on Information theory and Its Applications 2010 (ISITA 2011) — Taichung, Taiwan
2010
General Secretary.

The IEEE Consumer Communications and Networking Conference 2011 (IEEE CCNC 2011): Smart Spaces and Personal Area Networks for CE track — Las Vegas, USA
2011
Technical Program Committee member.

The 2011 IEEE International Conference on Communications (IEEE ICC 2011): Communication and Information Systems Security Symposium — Kyoto, Japan
2011
Technical Program Committee member.

Awards & Honors

- 2007, *Outstanding Research Award*– Awarded by College of Electrical Engineering and Computer Science, National Taipei University, Taiwan, ROC.
- 2002-2004, *SUPRIA Visiting Research Scholarship* – Awarded by CASE center at Syracuse University, New York.

- 2000, *89-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 2000, *Research Award* – Awarded by National Chi Nan University, Taiwan, ROC.
- 1999, *88-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 1998, *87-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 1997, *86-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- **1997**, A paper was honored as long presentation at *the 1997 IEEE International Symposium on Information theory.* [1]
- **1994**, *Syracuse University Doctoral Prize of the Year 1994* – Awarded by Syracuse University.
- 1994, *83-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 1993, *82-fiscal-year Research Award for Young Researcher* – Awarded by National Science Council, Taiwan, ROC.
- **1993**, A paper was honored as long presentation at *the 1993 IEEE International Symposium on Information theory.*

Professional Memberships

- Senior Member of IEEE – Information Theory and Communication Societies.

Research Interests

- Wireless Networks– especially on the security, energy control, and analysis of sensor networks and ad hoc networks.
- Security– especially on the topics related to sensor networks and privacy-preserving.
- Coding Theory– especially on the development of the theory of decoding and the design of practical decoding algorithms for error-correcting codes.
- Wireless Communication– especially on the application and VLSI design of error-correcting codes.

Projects

- ## National Science Council

1. **August 2007– July 2010.** Study on Soft-Decision Decoding for Tail-Biting Convolutional Codes, Principle Investigator. **(NSC)**
2. **August 2007– July 2010.** Using MDS Codes to Efficiently Establish Secure Channels for Wireless Sensor Networks, Principle Investigator. **(NSC)**
3. **August 2006– July 2007.** The Study of Key Exchange for Wireless Sensor Networks, Principle Investigator. **(NSC)**
4. **August 2005– July 2007.** The Study of Cyclic Redundancy Check Codes for Message Length Detection, Principle Investigator. **(NSC)**
5. **August 2004– July 2005.** The Study of Data Fusion in the Wireless Sensor Networks Using Coding Theory, Principle Investigator. **(NSC)**
6. **August 2003– July 2004.** WOFDM Down-Link Transmission Technology for 4G Wireless Communication System-Subproject 1: Coding Technology for WOFDM Transmission on Mobile Wireless Channel (3), Principle Investigator. **(NSC)**
7. **August 2002– July 2003.** Sequential Decoding and Generalized Fano Metric, Principle Investigator. **(NSC)**
8. **August 2001– July 2002.** WOFDM Down-Link Transmission Technology for 4G Wireless Communication System-Subproject 1: Coding Technology for WOFDM Transmission on Mobile Wireless Channel (1), Principle Investigator. **(NSC)**

[1] Only papers with the potential to have an impact on the state of the art of their respective research areas are accepted as long presentations. Usually there are only 17 of 580 accepted papers to be honored as long presentations.

9. **August 1999– July 2002.** Study of Medical Service system on Broadband Experimental Internet- Subproject 5: On the Study of the Secure Storage and Transmission of Multimedia Medical Information, Principle Investigator. **(NSC)**
10. **July 1999– June 2001.** Connection Project on Taiwan Academic Research Network-National Chi Nan University, Principle Investigator. **(NSC)**
11. **August 1999– July 2001.** A Geometric Searching Decoding Algorithm for Linear Block Codes, Principle Investigator. **(NSC)**
12. **August 1998– July 1999.** The Study of Maximum-Likelihood Soft-Decision Sequential Decoding for Convolutional Codes, Principle Investigator. **(NSC)**
13. **August 1997– July 1998.** The Study of Hard-Decision Decoding for Linear Block Codes, Principle Investigator. **(NSC)**
14. **August 1995– July 1996.** The Effect of Heuristic Information on the Soft-Decision Decoding for Linear Block Codes, Principle Investigator. **(NSC)**
15. **August 1994– July 1995.** The Study of Soft-Decision Decoding for Linear block Codes, Principle Investigator. **(NSC)**

- **Industry**

1. **November 2009– September 2010.** VLSI Design of Welch-Berlekamp Algorithm for Multilevel Flash Memories, Principle Investigator. **(Solid State system)**
2. **July 2009– May 2010.** Design of LDPC Codes for Multilevel Flash Memories, Principle Investigator. **(Solid State system)**
3. **November 2007– July 2008.** VLSI Design of AES, Principle Investigator. **(Solid State system)**
4. **August 2007– June 2008.** Design of Low Gate Count Error Control Codes for Multilevel Flash Memories, Principle Investigator. **(Solid State system)**
5. **August 2006– April 2007.** Design of Efficient Error Control Codes for Multilevel Flash Memories, Principle Investigator. **(Solid State system)**
6. **January 2006– January 2007.** Development of Error Correcting Algorithms for 3.5G HSDPA System, Principle Investigator. **(Sunplus)**

Publications

- **Book Chapters**

1. Y. S. Han and P.-N. Chen, "Sequential Decoding of Convolutional Codes," *Encyclopedia of Telecommunications* (Editor: John Proakis), New York, Wiley, 2002, pp. 2140-2146.

- **Refereed papers**

1. Y.-M. Huang, T.-Y. Wu, and Y. S. Han, "An A^*-based Algorithm for Constructing Reversible Variable Length Codes with Minimum Average Codeword Length," *IEEE Trans. on Communications*, to appear. **(Full paper)**
2. H.-T. Pai, J. Deng, and Y. S. Han, "Time-Slotted Voting Mechanism for Fusion Data Assurance in Wireless Sensor Networks Under Stealthy Attacks," *Computer Communications*, to appear. **(Full paper)**
3. C.-L. Wu, P.-N. Chen, Y. S. Han, and M.-H. Kuo, "Maximum-Likelihood Priority-First Search Decodable Codes for Combined Channel Estimation and Error Correction," *IEEE Trans. on Information Theory*, pp. 4191-4203, September 2009. **(Full paper)**
4. J. Deng, Y. S. Han, and S. R. Kulkarni, "Can Multiple Subchannels Improve the Delay Performance of RTS/CTS-based MAC Schemes?" *IEEE Trans. on Wireless Communications*, pp. 1591-1596, April, 2009.
5. H.-T. Pai, Y. S. Han, T.-Y. Wu, P.-N. Chen, and S.-L. Shieh, "Low-Complexity ML Decoding for Convolutional Tail-Biting Codes," *IEEE Communications Letters*, pp. 883-885, December, 2008.

6. S. C.-H. Huang, P.-J. Wan, J. Deng, and Y. S. Han, "Broadcast Scheduling in Interference Environment," *IEEE Trans. on Mobile Computing*, pp. 1338-1348. November, 2008. **(full paper)**
7. C.-Y. Wang, P.-N. Chen, W.-T. Chen, S.-L. Shieh, and Y. S. Han, "An Efficient SNR Estimate Scheme for Turbo Decoder over Quasi-Static Channels," *International Journal of Electrical Engineering (IJEE)*, pp. 261-268, 2008. **(full paper)**
8. Y.-M. Huang, Y. S. Han, and T.-Y. Wu, "Soft-Decision Priority-First Decoding Algorithms for Variable-Length Error-Correcting Codes," *IEEE Communications Letters*, pp. 572-574, August, 2008.
9. J. Deng and Y. S. Han, "Multi-path Key Establishment for Wireless Sensor Networks Using Just Enough Redundancy Transmission," *IEEE Trans. on Dependable and Secure Computing*, pp. 177-190, July-September, 2008. **(full paper)**
10. H.-T. Pai, Y. S. Han, and J.-T. Sung, "Two-Dimensional Coded Classification Schemes in Wireless Sensor Networks," *IEEE Trans. on Wireless Communications*, pp. 1450-1455, May, 2008.
11. H.-T. Pai and Y. S. Han, "Power-Efficient Direct-Voting Assurance for Data Fusion in Wireless Sensor Networks," *IEEE Trans. on Computers*, pp. 261-273, February, 2008. **(full paper)**
12. J. Deng, Y. S. Han, P.-N. Chen, and P. K. Varshney, "Optimal Transmission Range for Wireless Ad Hoc Networks Based on Energy Efficiency," *IEEE Trans. on Communications*, pp. 1772-1782, September, 2007. **(full paper)**
13. S.-L. Shieh, P.-N. Chen, and Y. S. Han, "Flip CRC Modification for Message Length Detection," *IEEE Trans. on Communications*, pp. 1747-1756, September, 2007. **(full paper)**
14. H.-T. Pai, J.-T. Sung, and Y. S. Han, "Adaptive Retransmission with Balanced Load for Fault-Tolerant Distributed Detection in Wireless Sensor Networks," *Journal of Information Science and Engineering: special issue on Wireless Ad Hoc and Sensor Networks*, pp. 1141-1154, July, 2007. **(full paper)**
15. C. Yao, P.-N. Chen, T.-Y. Wang, Y. S. Han, and P. K. Varshney, "Performance Analysis and Code Design for Minimum Hamming Distance Fusion in Wireless Sensor Networks," *IEEE Trans. on Information Theory*, pp. 1706-1715, May, 2007. **(full paper)**
16. Y.-J. Chen, D.-R. Duh, and Y. S. Han, "An Improved Modulo $(2^n + 1)$ Multiplier for IDEA," *Journal of Information Science and Engineering*, pp. 911-923, March 2007.
17. C.-W. Chang, P.-N. Chen, and Y. S. Han, "A Systematic Bit-wise Decomposition of M-ary Symbol Metric," *IEEE Trans. on Wireless Communications*, pp. 2742-2751, October, 2006. **(full paper)**
18. Y. S. Han, J. Deng, and Z. J. Haas, "Analyzing Multi-Channel Medium Access Control Schemes with ALOHA Reservation," *IEEE Trans. on Wireless Communications*, pp. 2143-2152, August, 2006. **(full paper)**
19. T.-Y. Wang, Y. S. Han, B. Chen, and P. K. Varshney, "A Combined Decision Fusion and Channel Coding Scheme for Distributed Fault-Tolerant Classification in Wireless Sensor Networks," *IEEE Trans. on Wireless Communications*, pp. 1695-1705, July, 2006. **(full paper)**
20. J. Deng, Y. S. Han, and Z. J. Haas, "Analyzing Split Channel Medium Access Control Schemes," *IEEE Trans. on Wireless Communications*, pp. 967-971, May, 2006.
21. W. Du, J. Deng, Y. S. Han, and P. K. Varshney "A Key Pre-distribution Scheme for Sensor Networks Using Deployment Knowledge," *IEEE Trans. on Dependable and Secure Computing*, pp. 62-77, January, 2006. **(full paper) (Has been cited more than 500 times according to Google Scholar)**
22. J. Deng, Y. S. Han, W. B. Heinzelman, and P. K. Varshney, "Scheduling Sleeping Nodes in High Density Cluster-based Sensor Networks," *ACM/Kluwer MONET Spe-*

cial Issue on "Energy Constraints and Lifetime Performance in Wireless Sensor Networks," pp. 825-835, December, 2005. **(full paper)**

23. T.-Y. Wang, Y. S. Han, and P. K. Varshney, "Fault-Tolerant Distributed Classification Based on Non-binary Codes in Wireless Sensor Networks," *IEEE Communications Letters*, pp. 808-810, September, 2005.
24. J. Deng, Y. S. Han, W. B. Heinzelman, and P. K. Varshney, "Balanced-energy Sleep Scheduling Scheme for High Density Cluster-based Sensor Networks," *Computer Communications : special issue on ASWN04*, pp. 1631-1642, September, 2005. **(full paper)**
25. W. Du, J. Deng, Y. S. Han, P. K. Varshney, J. Katz, and A. Khalili, "A Pairwise Key Pre-distribution Scheme for Wireless Sensor Networks," *ACM Trans. on Information and System Security (TISSEC)*, pp. 228-258, May, 2005. **(full paper) (Has been cited more than 1000 times according to Google Scholar)**
26. T.-Y. Wang, Y. S. Han, P. K. Varshney, and P.-N. Chen, "Distributed Fault-Tolerant Classification in Wireless Sensor Networks," *IEEE Journal on Selected Areas in Communications (JSAC): special issue on Self-Organizing Distributed Collaborative Sensor Networks*, pp. 724-734, April, 2005. **(full paper)**
27. C.-C. Lee, P.-C. Chung, D.-R. Duh, Y. S. Han, and C.-W. Lin, "A Practice of a Collaborative Multipoint Medical Teleconsultation System on Broadband Network," *Journal of High Speed Networks*, pp. 207-222, September, 2004. **(full paper)**
28. Y. S. Han, P.-N. Chen and H.-B. Wu, "A Maximum-Likelihood Soft-Decision Sequential Decoding Algorithm for Binary Convolutional Codes," *IEEE Trans. on Communications*, pp. 173-178, February, 2002.
29. P.-N. Chen and Y. S. Han, "Asymptotic Minimum Covering Radius of Block Codes," *SIAM Journal on Discrete Mathematics*, pp. 549-564, November, 2001. **(full paper)**
30. P.-N. Chen, T.-Y. Lee, and Y. S. Han, "Distance-Spectrum Formulas on the Largest Minimum Distance of Block Codes, " *IEEE Trans. on Information Theory*, pp. 869-885, May, 2000. **(full paper)**
31. Y. S. Han, "A New Decoding Algorithm for Complete Decoding of Linear Block Codes," *SIAM Journal on Discrete Mathematics*, pp. 664-671, November, 1998. **(full paper)**
32. Y. S. Han, "A New Treatment of Priority-First Search Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes," *IEEE Trans. on Information Theory*, pp. 3091-3096, November, 1998.
33. Y. S. Han, C. R. P. Hartmann, and K. G. Mehrotra, "Decoding Linear Block Codes Using a Priority-First Search: Performance Analysis and Suboptimal Version," *IEEE Trans. on Information Theory*, pp. 1233-1246, May, 1998.
34. Y. S. Han, and C. R. P. Hartmann, "The Zero-Guards Algorithm for General Minimum Distance Decoding Problem," *IEEE Trans. on Information Theory*, pp. 1655-1658, September, 1997.
35. D. L. Tao, C. R. P. Hartmann , and Y. S. Han, "New Encoding/Decoding Methods for Designing Fault-Tolerant Matrix Operations, " *IEEE Trans. on Parallel and Distributed Systems*, pp. 931-938, September, 1996. **(full paper)**
36. Y. S. Han, C. R. P. Hartmann, and C-C. Chen, "Efficient Priority-First Search Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes," *IEEE Trans. on Information Theory*, pp. 1514-1523, September, 1993. **(full paper) (Has been cited about 100 times according to Google Scholar)**

- **Refereed Conference**

1. Y. S. Han, S. Omiwade, and R. Zheng, "Survivable Distributed Storage with Progressive Decoding," *the IEEE INFOCOM 2010 (mini-conference)*, San Diego, March, 2010.

2. J. Deng, Y. S. Han, and B. Liang, "Fairness Index Based on Variational Distance," *IEEE 2009 Global Communications Conference (Globecom'2009)*, Hawaii, November, 2009.
3. C.-L. Wu, M. Skoglund, P.-N. Chen, and Y. S. Han, "A Systematic Space-Time Code Design and Its Maximum-Likelihood Decoding for Combined Channel Estimation and Error Correction," *2009 International Symposium on Information (ISIT2009)*, Seoul, South Korea, June, 2009.
4. C.-L. Wu, P.-N. Chen, and Y. S. Han,"A Self-Orthogonal Code and Its Maximum-Likelihood Decoder for Combined Channel Estimation and Error Protection," *2008 International Symposium on Information Theory and its Applications (ISITA2008)*, Auckland, New Zealand, December, 2008.
5. Y. S. Han, T.-Y. Wu, H.-T. Pai, P.-N. Chen, and S.-L. Shieh, "Priority-First Search Decoding for Convolutional Tail-biting Codes," *2008 International Symposium on Information Theory and its Applications (ISITA2008)*, Auckland, New Zealand, December, 2008.
6. Y.-M. Huang, C.-F. Lo, and Y. S. Han, "Bit- and Trellis- Based Soft-Decision Sequential Decoding for Variable-Length Error-Correcting Codes," *The 14th Asia-Pacific Conference on Communications (APCC 2008)*, Tokyo, Japan, October, 2008.
7. Y.-M. Huang and Y. S. Han, "Trellis-Based Joint Huffman and Convolutional Soft-Decision Priority-First Decoding," *2008 IEEE Data Compression Conference (DCC 2008)*, Utah, March, 2008, p. 521.
8. J. Deng and Y. S. Han, "Babel: Using a Common Bridge Node to Deliver Multiple Keys in Wireless Sensor Networks," *Proceedings of IEEE 2007 Global Communications Conference (Globecom'2007)*, Washington D.C., November, 2007, pp. 161-165.
9. S.-L. Shieh, P.-N Chen and Y. S. Han,"Reduction of Computational Complexity and Sufficient Stack Size of the MLSDA by Early Elimination," *the IEEE International Symposium on Information Theory (ISIT2007)*, Nice, France, June, 2007, pp. 1671-1675.
10. P.-N. Chen, T.-Y. Wang, Y. S. Han, and Y.-T. Wang, "On the Design of Soft-Decision Fusion Rule for Coding Approach in Wireless Sensor Networks," *International Conference on Algorithms, Systems, and Applications (WASA2006)*, Xian, P. R. China, August, 2006. *Lecture Notes in Computer Science (LNCS)*, Springer-Verlag, pp. 140-150, 2006.
11. P.-N. Chen, T.-Y. Wang, Y. S. Han, P. K. Varshney, C. Yao, and S.-L. Shieh, "Fault-Tolerance Analysis of a Wireless Sensor Network with Distributed Classification Codes," *the IEEE International Symposium on Information Theory (ISIT2006)*, Seattle, July, 2006, pp. 217-221.
12. H.-T. Pai and Y. S. Han, "Power-Efficient Data Fusion Assurance Using Direct Voting Mechanism in Wireless Sensor Networks," *the 2006 IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing (SUTC2006)*, Taichung, Taiwan, June, 2006, pp. 2-7.
13. H.-T. Pai, J.-T. Sung, and Y. S. Han, "Adaptive Retransmission for Distributed Detection in Wireless Sensor Networks," *the IEEE Workshop on Ad Hoc and Ubiquitous Computing (AHUC2006)*, Taichung, Taiwan, June, 2006, pp. 368-375.
14. J. Deng and Y. S. Han, "Using MDS Codes for the Key Establishment of Wireless Sensor Networks," *International Conference on Mobile Ad-hoc and Sensor Networks (MSN '05)*, Wuhan, P. R. China, December 2005. *Lecture Notes in Computer Science (LNCS)*, Springer-Verlag, pp. 732-744, 2005.
15. S.-L. Shieh, S.-T. Kuo, P.-N Chen and Y. S. Han, "Strategies for Blind Transport Format Detection Using Cyclic Redundancy Check in UMTS WCDMA," *2005 IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WIMOB2005)*, Montreal, Canada, August, 2005, pp. 44-50.

16. H.-T. Pai, J.-T. Sung, and Y. S. Han, "A Simple Two-Dimensional Coded Detection Scheme in Wireless Sensor Networks," *the First IEEE International Workshop in Heterogeneous Wireless Sensor Networks (HWISE-2005)* , Fukuoka, Japan, July 2005, pp. 383-387.
17. P.-N. Chen, T.-Y. Wang, Y. S. Han, P. K. Varshney and C. Yao, "Asymptotic Performance Analysis for minimum-Hamming-distance fusion," *the IEEE International Conference on Acoustics, Speech, and Signal Processing 2005 (ICASSP'05)*, Philadelphia, USA, March 2005, pp. 865-868.
18. S.-L. Shieh, P.-N. Chen, and Y. S. Han,"A Novel Modification of Cyclic Redundancy Check for Message Length Detection," *the 2004 IEEE International Symposium on Information Theory and its Applications (ISITA2004)*, Parma, Italy, October, 2004.
19. C.-W. Chang, P.-N. Chen, and Y. S. Han, "Realization of a Systematic Bit-wise Decomposition Metric," *the 2004 IEEE Asia-Pacific Conference on Circuits and Systems (APCCAS'04)*, Tainan, Taiwan, December, 2004, pp. 1065-1068.
20. J. Deng, Y. S. Han, W. B. Heinzelman, and P. K. Varshney, "Balanced-energy Sleep Scheduling Scheme for High Density Cluster-based Sensor Networks," *4th Workshop on Applications and Services in Wireless Networks (ASWN04)*, Boston, Massachusetts, August, 2004, pp. 99-108. **(Selected for possible publication in a special issue of Elsevier's Computer Communications Journal)**
21. Y.-J. Chen, D.-R. Duh, and Y. S. Han, "A New Modulo (2^n+1) Multiplier for IDEA," *the 2004 International Conference on Security and Management (SAM'04)*, Las Vegas, Nevada, June, 2004, pp. 318-324.
22. T.-Y. Wang, Y. S. Han, and P. K. Varshney, "A Combined Decision Fusion and Channel Coding Scheme for Fault-Tolerant Classification in Wireless Sensor Networks," *the 2004 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2004)*, Montreal, Quebec, Canada, May, 2004, pp. 1073-1076.
23. J. Deng, Y. S. Han, P.-N. Chen, and P. K. Varshney, "Optimum Transmission Range for Wireless Ad Hoc Networks," *the IEEE Wireless Communications and Networking Conference 2004 (WCNC04)*, Atlanta, GA, March, 2004, pp. 1024-1029.
24. W. Du, Y. S. Han, and S. Chen "Privacy-Preserving Multivariate Statistical Analysis: Linear Regression and Classification," *the 2004 SIAM International Conference on Data Mining (SDM04)*, Lake Buena Vista, FL, April, 2004, pp. 222-233. (Regular paper)
25. T.-Y. Wang, Y. S. Han, and P. K. Varshney, "Further Results on Fault-Tolerant Distributed Classification Using Error Correcting Codes," *the SPIE's Aerosense conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications*, Orlando, FL, April, 2004.
26. W. Du, J. Deng, Y. S. Han, S. Chen and P. K. Varshney "A Key Management Scheme for Wireless Sensor Networks Using Deployment Knowledge," the *IEEE INFOCOM 2004*, Hong Kong, March 2004, pp.586-597.
27. W. Du, J. Deng, Y. S. Han, and P. K. Varshney, "A Pairwise Key Pre-distribution Scheme for Wireless Sensor Networks," *Proceedings of 10th ACM Conference on Computer and Communications Security (CCS2003)*, Washington DC, October, 2003, pp. 42-51.
28. J. Deng, Y. S. Han, and Z. J. Haas, "Analyzing Split Channel Medium Access Control Schemes with ALOHA Reservation," in *Ad-Hoc, Mobile, and Wireless Networks – ADHOC-NOW '03*, S. Pierre, M. Barbeau, and E. Kranakis, Eds. 2003, vol. 2865 of Lecture Notes in Computer Science (LNCS), pp. 128-139, Springer-Verlag.
29. W. Du, J. Deng, Y. S. Han, and P. K. Varshney, "A Witness-Based Approach for Data Fusion Assurance in Wireless Sensor Networks," *Proceedings of IEEE 2003 Global Communications Conference (Globecom2003)*, San Francisco, CA, December, 2003, pp. 1435-1439.

30. T.-Y. Wang, Y. S. Han, and P. K. Varshney, "Fault-Tolerant Classification in Multisensor Networks Using Coding Theory," *Proceedings of the 6th International Conference on Information Fusion (Fusion2003)*, Cairns, Australia, July, 2003, pp. 772-779. **(invited paper)**
31. T.-Y. Wang, P. K. Varshney, and Y. S. Han, "Distribution Classification Fusion Using Error Correcting Codes," *Proceedings of the SPIE's Aerosense conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications*, Orlando, FL, April, 2003, pp. 47-57.
32. Y. S. Han, P.-N. Chen, and M. Fossorier, "A Generalization of the Fano Metric and Its Effect on Sequential Decoding Using a Stack," *Proceedings of the IEEE International Symposium on Information Theory*, Lausanne, Switzerland, June, 2002, p. 134.
33. P.-N. Chen, Y. S. Han, C. R. P. Hartmann, and H.-B. Wu, "Analysis of Decoding Complexity Using New Variation of Berry-Esseen Theorem," *Proceedings of the IEEE International Symposium on Information Theory*, Lausanne, Switzerland, June, 2002, p. 286.
34. C.-K. Lin, P.-N. Chen and Y. S. Han, "A Low-Complexity Stochastic Codebook Searching Algorithm for FS1016," *Workshop on the 21st Century Digital Life and Internet Technologies*, Tainan, Taiwan, May, 2001.
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